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**NATIONAL PHOTOGRAPHIC
INTERPRETATION CENTER**

Summary Report

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PROBABLE MOBILE VERSION OF RAMONA ELINT SYSTEM IDENTIFIED IN CZECHOSLOVAKIA (TSR)

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SR-020/79

APRIL 1979

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PROBABLE MOBILE VERSION OF RAMONA ELINT SYSTEM IDENTIFIED IN CZECHOSLOVAKIA (TSR)

(TSR) [REDACTED] the production and testing of a mobile version of the Ramona automated ELINT collection and target locating system in Czechoslovakia. Detailed analysis of [REDACTED] indicates that this mobile version, the Ramona-M, was probably present at Opatovice Army Barracks 001 [REDACTED] Czechoslovakia. Equipment observed included a [REDACTED] sphere on a [REDACTED] mast, two van trailers, and one van truck. The mast appeared to be cable connected to a van trailer (Figure 1).

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(TSRU) The Ramona-M system reportedly has been under development since June 1975 and has undergone prototype testing between March and December 1978.¹ The Ramona-M at Opatovice 001 was probably undergoing prototype testing when imaged on [REDACTED]

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(TSRU) Recent reports indicate that acceptance testing of the mobile Ramona-M will take place from March to September 1979. It is scheduled to be released to the armed forces in late 1979.¹

(TSRU) The operation of the mobile Ramona-M reportedly is similar to that of the fixed Ramona system which consists of a center station with two flank stations approximately 15 nautical miles apart. The time difference of arrival of signals from the flank stations to the center station determines the target's location.¹ An attache photograph shows a probable Ramona-M at Chrudim, Czechoslovakia, in September 1978 (Figure 2).²

(S) Comments and queries regarding this report are welcome. They may be directed to [REDACTED] Warsaw Pact Forces Division, Imagery Exploitation Group, NPIC, [REDACTED]

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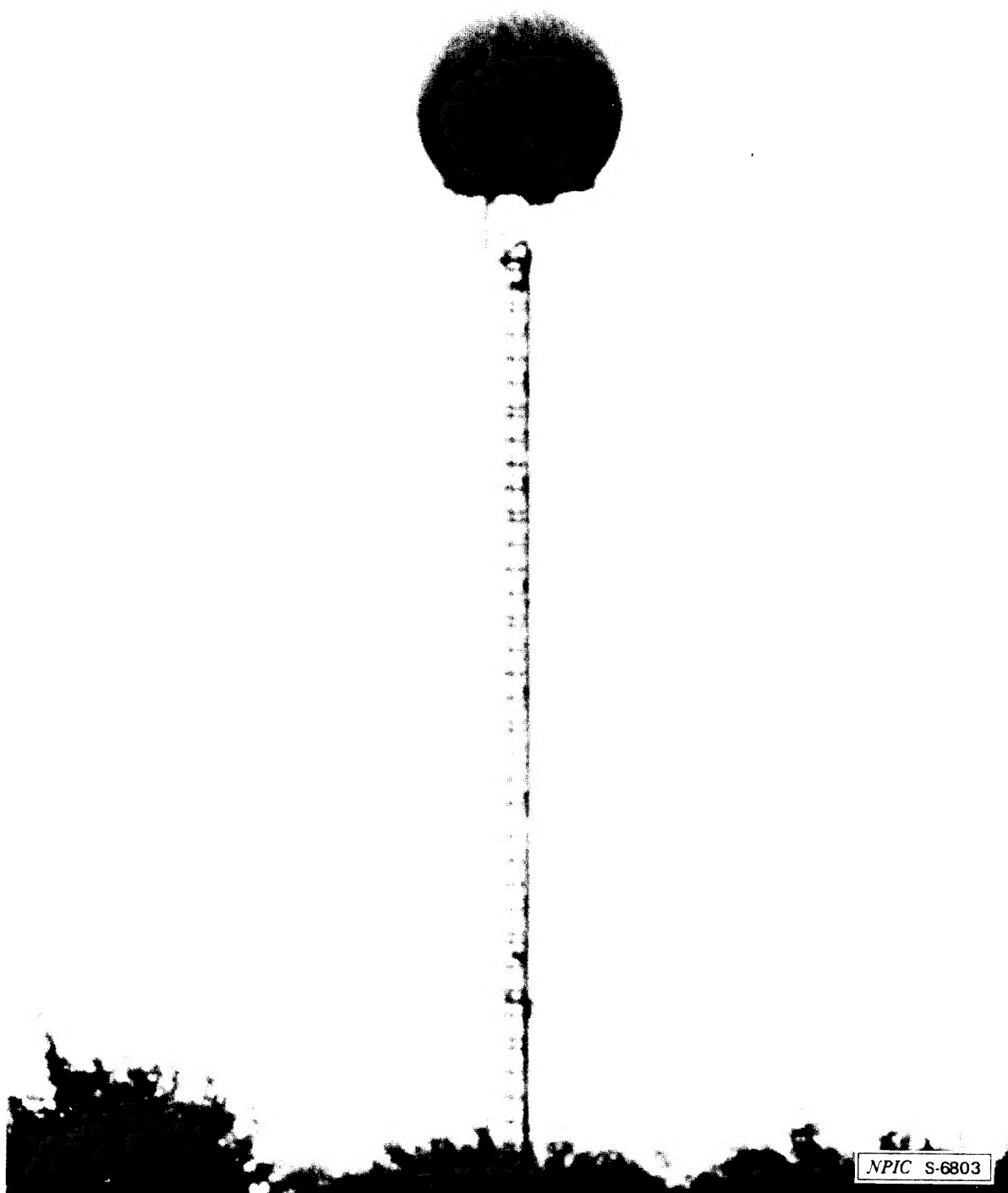


FIGURE 2. GROUND PHOTOGRAPH OF RAMONA-M AT CHRUDIM, CZECHOSLOVAKIA. Photograph taken from Reference Document 2.

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REFERENCES

DOCUMENTS

1. NSA. Report No 3/00/30540-78, *Czechoslovakia Developing Mobile Version of the Ramona ELINT Collection System*, 14 Sep 78 (TOP SECRET []) 25X1
2. DoD. IR 40/78, 6824-0307-78, Sep 78 (CONFIDENTIAL)

RELATED DOCUMENTS

- NSA. 3/00/8862-79, *Czechoslovaks Prepare for Military Testing of Mobile ELINT Collection System (TSC)*, 082233Z Mar 79 (TOP SECRET []) 25X1
- NSA. 3/00/5224-79, *Development of Czechoslovak Mobile ELINT Collection System Continues (TSC)*, 091528Z Feb 79 (TOP SECRET []) 25X1
- NSA. 3/00/35411-78, *Czechoslovakia Schedules Tests of Probable Mobile Ramona ELINT System from April to September 1979*, 231416Z Oct 78 (TOP SECRET []) 25X1
- NSA. Report No 3/00/13809-76, *The Czechoslovak Automated ELINT Collection and Information Forwarding System, Ramona, as of April 1976*, 29 Apr 76 (TOP SECRET []) 25X1
- NSA. 3/00/13809-76, *The Czechoslovak Automated ELINT Collection and Information Forwarding System, Ramona, as of April 1976*, 291759Z Apr 76 (TOP SECRET []) 25X1

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List of Conversion Factors by Classification

UNITS OF LENGTH

| <i>IF YOU HAVE</i> | <i>MULTIPLY BY</i> | <i>TO OBTAIN</i> |
|--------------------|--------------------|------------------|
| MILLIMETERS | 0.0394 | INCHES |
| CENTIMETERS | 0.3937 | INCHES |
| INCHES | 25.4000 | MILLIMETERS |
| INCHES | 2.5400 | CENTIMETERS |
| FEET | 0.3048 | METERS |
| FEET | 0.0003 | KILOMETERS |
| YARDS | 0.9144 | METERS |
| METERS | 3.2808 | FEET |
| METERS | 0.0005 | MILES(NAUTICAL) |
| METERS | 1.0936 | YARDS |
| KILOMETERS | 3280.8400 | FEET |
| KILOMETERS | 0.6214 | MILES(STATUTE) |
| KILOMETERS | 0.5400 | MILES(NAUTICAL) |
| MILES(STATUTE) | 1.6093 | KILOMETERS |
| MILES(NAUTICAL) | 6076.1154 | FEET |
| MILES(NAUTICAL) | 1.8520 | KILOMETERS |
| MILES(NAUTICAL) | 1852.0000 | METERS |

UNITS OF MASS

| <i>IF YOU HAVE</i> | <i>MULTIPLY BY</i> | <i>TO OBTAIN</i> |
|--------------------|--------------------|------------------|
| KILOGRAMS | 2.2046 | POUNDS(AVOIR.) |
| POUNDS(AVOIR.) | 0.4536 | KILOGRAMS |
| SHORT TONS | 0.9072 | METRIC TONS |
| METRIC TONS | 1.1023 | SHORT TONS |
| METRIC TONS | 0.9842 | LONG TONS |
| LONG TONS | 1.0160 | METRIC TONS |

UNITS OF VOLUME

| <i>IF YOU HAVE</i> | <i>MULTIPLY BY</i> | <i>TO OBTAIN</i> |
|--------------------|--------------------|------------------|
| LITERS | 0.2642 | GALLONS |
| LITERS | 0.0063 | BARRELS(POL) |
| LITERS | 0.0010 | CUBIC METERS |
| GALLONS | 3.7854 | LITERS |
| GALLONS | 0.1337 | CUBIC FEET |
| GALLONS | 0.0238 | BARRELS(POL) |
| GALLONS | 0.0038 | CUBIC METERS |
| BUSHELS | 0.0352 | CUBIC METERS |
| CUBIC FEET | 7.4805 | GALLONS |
| CUBIC FEET | 0.1781 | BARRELS(POL) |
| CUBIC FEET | 0.0283 | CUBIC METERS |
| CUBIC YARDS | 0.7646 | CUBIC METERS |
| BARRELS(POL) | 158.9873 | LITERS |
| BARRELS(POL) | 42.0000 | GALLONS |
| BARRELS(POL) | 5.6146 | CUBIC FEET |
| BARRELS(POL) | 0.1590 | CUBIC METERS |
| CUBIC METERS | 1000.0000 | LITERS |
| CUBIC METERS | 264.1721 | GALLONS |
| CUBIC METERS | 35.3147 | CUBIC FEET |
| CUBIC METERS | 28.3776 | BUSHELS |
| CUBIC METERS | 6.2898 | BARRELS(POL) |
| CUBIC METERS | 1.3080 | CUBIC YARDS |

UNITS OF AREA

| <i>IF YOU HAVE</i> | <i>MULTIPLY BY</i> | <i>TO OBTAIN</i> |
|--------------------|--------------------|--------------------|
| SQUARE CENTIMETERS | 0.1550 | SQUARE INCHES |
| SQUARE INCHES | 6.4516 | SQUARE CENTIMETERS |
| SQUARE FEET | 0.0929 | SQUARE METERS |
| SQUARE YARDS | 0.8361 | SQUARE METERS |
| SQUARE METERS | 10.7639 | SQUARE FEET |
| SQUARE METERS | 1.1960 | SQUARE YARDS |
| SQUARE METERS | 1.0000 | CENTARES |
| SQUARE METERS | 0.0002 | ACRES |
| SQUARE METERS | 0.0001 | HECTARES |
| ACRES | 4046.8564 | SQUARE METERS |
| ACRES | 0.4047 | HECTARES |
| HECTARES | 10000.0000 | SQUARE METERS |
| HECTARES | 2.4711 | ACRES |

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